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ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R) CONTRACT NO: EDH-I-00-08-00023

MONTHLY PROGRESS REPORT – AUGUST 2014

10 September 2014

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Prepared for: **USAID/Liberia**

Prepared by: Howard M Shelmerdine
 Jim Clarke
 Michael Kpange

10 September 2014

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government. This report was prepared for the U.S. Agency for International Development. It was prepared by CDM International, Engineering Services Rural Roads Rehabilitation (ES3R)

Acronyms

A & E	Architect and Engineer
BoQ	Bills of Quantity
COP	Chief of Party
COR	Contracting Officer Representative
EMMP	Environmental Mitigation and Monitoring Plan
ES	Environmental Specialist
ESMMP	Environmental & Social Mitigation & Monitoring Plan
ES3R	Engineering Services for Rural Roads Rehabilitation
ETL	Engineering Team Leader
FED	Food and Enterprise Development
FTF	Feed the Future
FTL	Field Team Leader
F2M	Farm to Market
F2MRR	Farm to Market Road Rehabilitation
GIS	Geographic Information System
GOL	Government of Liberia
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
MOF	Ministry of Finance
MPEA	Ministry of Planning and Economic Affairs
MPW	Ministry of Public Works
OCA	Organizational Capacity Assessment
PIRS	Performance Indicator Results Sheet
RE	Resident Engineer
SI	Site Inspector
USAID	United States Agency for International Development

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

MONTHLY PROGRESS REPORT AUGUST 2014

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1. SUMMARY PROJECT DESCRIPTION

1.1 Introduction

The U. S. Agency for International Development's (USAID) 'Engineering Services for Rural Roads Rehabilitation (ES3R)' was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 which records the period of performance as 8 October 2013 to 20 October 2015.

Liberia's Farm to Market Rural Roads (F2MRR) activity is allied to the objectives of the Feed the Future (FTF) initiative, which is a U.S. government initiative, which aims to address the root causes of global hunger by sustainably increasing agricultural productivity. F2MRR will provide infrastructure investment in the rehabilitation of rural farm-to-market roads to support the following:

- USAID /Liberia FTF program Food and Enterprise Development (FED),
- Capacity development for routine maintenance systems within the Government of Liberia (GOL),
- Capacity development of Ministry of Public Works (MPW) rural roads engineers and local A & E firms,
- Development of alternative low volume road pavement pilot projects, standards and design specifications.

1.2 Objectives

Within F2MRR, ES3R will be an implementing mechanism which will undertake the following objectives:

Objective 1:

Provide construction oversight for three (3) local contracts for the rehabilitation of a total of 83.5 kilometers farm-to-market roads in Bong, Lofa, and Nimba counties from 2013 to 2015.

Objective 2:

Produce engineering designs and construction documents for the 450 kilometers farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties to be rehabilitated in 2015 to 2018.

Objective 3:

Training and pre-qualification of five (5) local architect-engineer firms capable of providing oversight for road rehabilitation activities by 2015.

This monthly progress report presented in respect of the project covers the progress of the works for the period from 1 August 2014 to 31 August 2014. In addition, the report details the status and approach to project challenges and presents a work schedule for the forthcoming month.

2. AUGUST 2014 OVERVIEW

Preamble

During August 2014, the majority of logistical work was completed however; the Ebola crisis situation has had a marked effect on the planned progress which will be elaborated throughout the report.

2.1 August Highlights Summary

The table included hereafter provides a summary of the project highlights:

AUGUST 2014		
Date	Description	Comment
1 Aug	CDM instruct field survey suspension	Ebola risk
2 Aug	Lofa team demob from Grand Bassa to Monrovia	Reduce health risk
2 Aug	SSF E-mail to USAID re: suspension of works	Application to CO
4 Aug	P Macy telcon with Contracting Officer	Telcon CDM / CO
5 Aug	ETL travels from Monrovia to Ganta	To Monrovia 6 aug
5 Aug	Suspension of Work order issued by USAID CO	Lofa Works
7 Aug	Office based work plan finalised	Liaise with HO
7 Aug	Weekly meeting with USAID COR	ETL & COR
7 Aug	President imposes State of Emergency	Country movement restrictions
8 Aug	ETL departs Monrovia to commence leave	Sick leave
8 Aug	Bong & Nimba teams demob to Monrovia	Emerg'ncy measure
11 Aug	Project staff meeting in Monrovia office	All tech staff
11 Aug	Skype coordination conference	Senior staff
12 Aug	Weekly meeting with USAID COR	COR & 2* FTL
13 Aug	ES3R response to USAID 'Guidance to IP's'	CDM E-mail
15 Aug	Meeting with COR & contractors (Bong & Nimba)	Team & contractors
15 Aug	ES3R submittal of Demobilization Plan to USAID	CDM E-mail
18 Aug	Staff meeting to review designs / BoQ	Design team

20 Aug	GOL imposes countrywide 21.00 – 06.00 curfew	Curfew in country
22 Aug	Review of BoQ with COR	COR & 2* FTL
24 Aug	ETL return to Monrovia delayed	Flight cancelled
26 Aug	Staff meeting and review of progress	Design team
26 Aug	Preliminary review of BoQ earthworks	COR & FTL Nimba
27 Aug	Meeting with USAID in Washington DC	CDM & USAID CO
28 Aug	CDM letter to USAID requesting direction	Letter to USAID CO
28 Aug	Skype follow up conference call	COR/COP/ETL/CDM
31 Aug	COR departs Liberia	USAID COR
31 Aug	ETL returns to Liberia	ETL - J Clarke

Items of note specifically related to the progression of project objectives include the demobilization of project field teams to Monrovia office which has been largely documented in the following:

- Project Deliverables and Documentation

2.2 Details of Highlights

2.2.1 Project Deliverables and Documentation

Table of ES3R Communication Documents and Letters

ES3R COMMUNICATION DOCUMENTS AND LETTERS			
Communication		Date	Detail
From	To		
USAID/Lib MD	All IP's	30-Jul-14	Ebola Message
CDM	USAID CO	31-Jul-14	Changed Conditions (sent 1 August)
USAID/Lib MD	All IP's	4-Aug-14	Ebola Update
USAID CO	SSF (Lofa Contractor)	5-Aug-14	Suspension of Work Order issued by USAID CO
USAID/Lib MD	All IP's	6-Aug-14	Ebola Update
CDM	USAID CO	6-Aug-14	Changed Conditions
CDM	USAID CO	9-Aug-14	Notification of partial Stop Work Conditions and requested Direction to Proceed
USAID/Lib MD	All IP's	11-Aug-14	Guidance to IP's
USAID CO	CDM	13-Aug-14	Notification of partial Stop Work Conditions and requested Direction to Proceed
CDM	USAID CO & COR	13-Aug-14	Request for Direction
CDM	USAID CO	14-Aug-14	Cost cutting measures due to remote based Chief of Party
CDM	USAID CO	15-Aug-14	Request for Reconsideration
CDM	USAID CO	26-Aug-14	Changing Conditions
CDM	USAID CO	28-Aug-14	Project Action Plan Modifications

The above 'Table of Communication Documents and Letters' includes in chronological order those communications of particular relevance to the progression of Works on the ES3R project.

The most significant effect on project planning and operations during the reporting month has been occasioned by the crisis caused by the Ebola virus. USAID have acknowledged that the Ebola virus is an

increasing cause of concern in Liberia. Such concern is considered to be totally vindicated by the total numbers of confirmed, probable and suspected cases of infection, which have increased from just over 300 at the beginning of August 2014 to 1690 at the end of the month.

In the first week of August the following was evident:

- Peace Corps temporarily suspended operations,
- CDC travel advisory recommended against non-essential travel to Liberia,
- SP announced it was evacuating non-essential personnel from Liberia,
- Liberia President declares countrywide 'State of Emergency'.

In addition, this period marked the start of notification of international flight suspensions in and out of Liberia which was continued throughout the month.

A situation update of information by USAID, acknowledged that the continued deterioration in the country's healthcare system and its ability to respond to non-Ebola illnesses, was of major concern.

The ES3R team have maintained close liaison with USAID CO and COR, regarding changes in planning and project implementation which were warranted as a consequence of the health risks which were being imposed on the field teams, in view of the essential interaction with the various local communities. The road survey fieldwork necessarily involves significant contact and engagement with the local communities because of the employment of local labour to assist in the field operations and in liaison with villagers in order to best meet the needs of the communities. During much of the field operations because of the remoteness of the road locations, our staff has to reside within the local communities. It is these

circumstances which have mainly contributed to the decisions which have been made by ES3R to temporarily suspend field operations.

ES3R have therefore informed and regularly updated USAID regarding adverse operational impacts, such that field based operations have been subjected to substantial 'stop work' conditions. Notwithstanding this, ES3R made alternative work planning arrangements in order that potential negative impacts on progress be mitigated as much as possible. The ES3R team has presented USAID with notification and details of changed conditions, as a result of which, requests for direction of future procedures have been made. The relevant correspondence is recorded in the said table. The position at the time of writing is that ES3R await response from USAID on the letter dated 28 August 2014.

Monthly Progress Report

The Monthly Progress Report for July 2014 was submitted to USAID on 8 August 2014.

Progress Meetings with USAID

Progress meetings and calls have been held with USAID as follows:

- 4 August: Telcon between CDM and USAID CO.
- 7 August: Progress Meeting with COR
- 12 August: Progress Meeting with COR
- 15 August: Meeting with Bong & Nimba contractors
- 22 August: Technical Review with COR
- 26 August: Technical Review with COR
- 27 August: Members of CDM staff and Cardno staff member meet with USAID CO in Washington D.C.
- 28 August: Conference call with USAID COR and CDM (Pretoria), COP and ETL.

3. PROJECT OBJECTIVES PROGRESS

3.1 Objective 1 – Construction Oversight

General:

A meeting was convened with the Bong and Nimba contractors on 15 August 2014. The Works contractors were advised that the QAC contractor (CDM International) temporarily withdrew from field based activities on 1 August 2014 due to the increasingly dangerous Ebola virus outbreak. The main purpose of the impromptu meeting was to discuss the effect of the current outbreak of Ebola on construction progress, discussion on how to progress with field activities in absence of the field QAC presence. Key outputs from the meeting included the following:

- Contractors could potentially continue with non-critical construction works, which could easily be crossed checked post construction using simple field tests. These include:
 - Site clearance related works,
 - Culvert related construction as agreed by QAC,
 - Ebola awareness measures for workers,
 - The Q.A.C advised the contractors that if they realize any need to request for a non-cost extension of time due to Ebola outbreak, the client has to be notified in time in writing, for contractual procedural purposes,
 - The contractors were advised that during this Ebola crisis period, any requests for measurement of works for payment, should be done with a minimum of one week notice to the COR, to enable him make arrangements for any requisite site inspection.

Bong:

Westwood was advised that the following works may be undertaken during August 2014:

- Site Clearance and smaller pipe culvert (24' & 36' diameter) work on Palala road would continue during the month of August. It was agreed that the contractor to avoid pipe culverts in active streams due to the risk of losing access during the heavy rain, until weather conditions improve.
- Completion of concrete casting to top slab at ongoing box culvert but no new box culverts to be opened, until further review of progress and revision to field supervision arrangements. The conditions laid out for the continued work at this box culvert included:-
 - Westwood to conduct on site slump tests and preparation of concrete test cubes during any concrete casting works to determine the constructed concrete strength.
 - Westwood to take photos of the reinforcement steel and formwork prior to casting of concrete, for submission to the QAC & C.O.R.
 - Q.A.C will make arrangement for site supervision support from the MPW resident engineer Bong County.
- With regards to the Ebola outbreak Westwood promised to conduct some Ebola awareness for its workers, as a measure to pre-empt any potential Ebola problems on site. The contractor was advised to prepare a short written report when it is done.

Overall assessed percentage completion: 31%

Percentage time elapsed: 41%

Financial:	Assessed Value of Works completed	\$ 587,494
	Total Contract Value	\$1,895,141.86
	Payments to Date	\$ 508,376.56

Nimba:

21st Century was advised that the following works may be undertaken during August 2014:

- Site clearance on the Zoe-Luappa road. This is expected to be completed by the end of the month of August.
- The remaining 2 No lines of 36" pipe culverts were expected to be installed by the end of August.
- Q.A.C will make arrangement for site supervision support from the MPW resident engineer Nimba County.

Overall assessed percentage completion: 43%

Percentage time elapsed: 41%

Total Contract Value	\$737,371.15
Payments to Date	\$280,847.97

Lofa:

The SSF request for suspension of work due to the current outbreak of Ebola has been granted by USAID/Liberia in letter dated 5 August 2014, which incorporated Modification No. 1; 'to suspend all works being completed in Lofa County from 8 August 2014 to 7 September 2014.

Overall assessed percentage completion: 34.4%

Percentage time elapsed: 41%

Total Contract Value	\$592,384.35
Payments to Date	\$202,957.65

Challenges

Challenges which have been reported by the Nimba contractor, 21st Century, are as follows:

- Bad weather in the month of Aug 2014. This has negatively impacted on the speed of the earthworks, due to the unworkable soils during and after the rainy periods, which have on some days virtually put the site on hold. However the QAC field team was not on site to verify or confirm the lost time due to bad weather during the month.
- Recently the Ebola outbreak has intensified in many areas in Liberia including Nimba County. This has made the working environment in the site and neighboring areas difficult due to the increased risk of infection to the workers as a result of their interaction pose to be a challenge.
- Frequent construction equipment breakdowns.
- Extended delay by the client to approve for the submitted 1st Incremental designs (including bridge designs). This has had a significant impact on the contractor's drainage construction works and rapid deterioration at some critical spots along the roads.

3.2 Objective 2 – Design and Contract Documents

General:

As a result of the temporary demobilization of the field teams to Monrovia and in order to mitigate the negative effects on the progress of the design work, ES3R formulated a revised workplan under cover of CDM letter dated 9 August 2014 which requested USAID for direction to proceed. A response dated 13 August 2014 was received from USAID/Liberia which advised of the following direction items:

- (1) All construction oversight for ongoing contracts in Lofa, Nimba and Bong Counties are hereby suspended until September 15, 2014.
- (2) All training and capacity building activities shall be suspended until September 15, 2014.
- (3) All field surveys and site based data collection for designs are hereby suspended until September 15, 2014.
- (4) From August 4, 2014 to September 15, 2014, ES3R is to complete a total of 74.8 km of roads. ES3R has assured the contracting office that enough field data and survey material were completed prior to August 4, 2014 to manage this task.
- (5) From August 4, 2014 to September 15, 2014, ES3R will update specifications, adjust typical drawings, modified BOQs, and contract administration forms/reporting templates.
- (6) The full ES3R project staff shall be available in country to provide support to all the deliverables mentioned above. No teleworking will be approved.
- (7) CDM Smith reserves the right to request the Contracting Officer to either rescind this order early, or request an extension.
- (8) CDM Smith shall submit an updated work plan and deliverable schedule outlining implementation strategies, schedules and updates of how the rest of the project deliverables will be met within the remaining life span of the project. This submission shall be within thirty (30) days, of the lifted suspension.

As such, the project design teams which were assembled in Monrovia from early August, commenced with and progressed the designs of those roads for which survey works and data had been completed in the field. This included the following components:

- **Bong**
 - Gbondoi – Gbanala road 17.5 km
 - Taylor Town – Nya Town road 14.1 km
- **Nimba**
 - Zuaplay – Doumpa – Gogoin road
 - and Gaopa – Garwonpa road
 - Sub-total 28 km

- **Lofa**

- John's Town – Tusa road 15.5 km

The above mentioned road sections relate to approximately 75 km of road which was scheduled for design completion on 26 September as per the workplan issued to USAID. In addition, the preparation of standard detail drawings and contract documents was included in the design works.

Subsequent to the issuance of the USAID letter, CDM prepared a letter of request for reconsideration to USAID dated 15 August 2014, which, subject to a meeting with USAID CO in Washington D.C., was reformulated as Project Action Plan Modifications which was issued to USAID on 28 August 2014, to which response is awaited.

3.3 Objective 3 – Training and Mentoring

As a consequence of the demobilization of QAC staff from field duties in August 2014, the mentoring of contractors was not applicable during the month. Because of the continuing Ebola crisis situation in Liberia, the schedule of training for A & E firms during September has been postponed which has placed a hold on interface with the A & E firms and trainees.

ES3R Team training and mentoring was undertaken as follows:

Resident Engineers:

- Road geometric calculations,
- Computing existing reduced levels,
- Analysis of details from existing road conditions for design purposes,
- Calculations in design of structures,
- Preparation of standard detail drawings.

Site Inspectors:

- Collection and analysis of field data,
- Road design calculations,
- Plotting of road reduced levels into AutoCAD.

4. PROJECT CHALLENGES

The following items have been encountered recently which are continuing and pose challenges to the ES3R team and project:

Challenge / Issue	Mitigation / Resolution
Bridge Engineer requirement.	Proposal for support for bridge structural design and associated works under consideration.
All contractors are struggling with the design / build contract model, thus require much support in preparation of submittals.	QAC has to offer inordinate amount of support to contractors in order that compliance be achieved and progress achieved.
Detailed design field survey commenced on 1 July. Available time for design documentation by deliverable date is 3.5 months.	On the basis of time available, completion of target design of 150km is a significant challenge as previously indicated. A time request extension is to be submitted due to project delays outside the control of the ES3R team.
The Ebola crisis continues to intensify at the end of July requiring evacuation of Peace Corps personnel and issuance of CDC travel advisory against non-essential travel.	Intensification of project safety protocol. All teams are confined to project office with a cessation of field work where interaction with local community is causing concern among team members.
MPW Technical Specifications, Method of Measurement and Detail Drawings which are required to be used in the contract documentation are neither finalized nor yet field tested.	ES3R have identified that from initial assessment, the existing MPW documents will require significant refinement for inclusion in the contract documents. Further work to be undertaken by ES3R.

5. OUTLINE SCHEDULE

5.1 Work Schedule for September 2014

Given the continued intensification of the Ebola outbreak, as well as the general evacuation of Peace Corps, Samaritans Purse, the recent CDC travel advisory and the general curtailment of flights to and from Liberia by international airlines, all teams are now involved in design activities from the Monrovia office. All field activities are on hold pending further development of the situation. Design work will be continued on field data already in hand from the prior month's activities. A Workplan is included in Annex A of this document which reflects that the design work related to the detailed field surveys which have been undertaken will be complete during the early part of October 2014.

Safety implementation is under daily review by the CDM Smith senior management and corporate safety officer as we monitor the progression of the Ebola situation. If at such time the rapid infection rate decreases or quarantine activities by the Government of Liberia begin to take immediate effect, then resumption of field activities could potentially resume, after a risk review analysis is conducted. As the situation is still developing during the preparation of this document, schedule impacts are unknown at this time and would likely occur if the trend continues to worsen in the coming weeks.

Objective 1 – Construction Oversight

Construction oversight for September 2014 will be on hold owing to the suspension of field operations in view of the continuation of the Ebola crisis:

- The country is now in the rainy season with the result that the contractors either have, or are in the process of scaling down the labour, plant and equipment.

- There is a contractual obligation in all the contracts to maintain access on the roads under construction.
- All teams have been confined to the Monrovia office due to the risks associated during the current Ebola outbreak.

Objective 2 – Design and Contract Documents

ES3R field staff will devote the month of September 2014 to continuation of design activities, specifically in office design services and processing of procured field data. Effort will include analysis of data, engineering design calculations, production of design drawings, preparation of bill of quantities, and contract documentation.

Objective 3 – Training (of A & E Firms) & Mentoring

The scheduled workshop which was due for commencement in mid-September 2014 has been postponed due to the ongoing Ebola crisis.

Mentoring of RE staff will include the following activities:

- Intervention selection to achieve the best standard results at minimum cost during detailed survey and design Intervention selection,
- Detailed design activities,
 - Review and revision of MPW standard documents
 - Quantification of interventions using revised Bill of Quantities and Method of Measurement.

The mentoring of SI staff will include the following:

- Field Data processing
 - Converting reduced levels into vertical profiles
 - Preparation of improvement plans
- Intervention selection to achieve the best standard results at minimum cost during detailed survey and design.

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX A

WORKPLAN and SCHEDULE SEPTEMBER 2014

Team	Activity	Sub-activity	Road	Length (km)	% Completed by 31 August	Expected completion date	Responsible person	Sep-14																														Oct-14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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